DENON

Hi-Fi Component

OPERATING INSTRUCTIONS
SERVO-CONTROLLED DIRECT DRIVE RECORD PLAYER

DP-1100
DP-1250 (WITHOUT TONEARM)

NIPPON COLUMBIA CO., LTD.

Each product of the **DENON** Hi-Fi Component Series, the fruit of a ripe experience in producing professional audio equipments enjoying reputation among radio and TV stations all over Japan, is designed and crafted for those dedicated audiophiles and music lovers.
You will find a truth on this product engineered by **DENON**, a brand for professional equipment.

IMPORTANT TO SAFETY

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

1. **To prevent electric shock, do not remove the bottom cover. Let qualified service men service your appliance.**
2. **If a needle, hair pin, coin or other metal object slips into a clearance or inside space of the set, it may cause electric shock or trouble. Exercise care not to do so.**
3. **Do not damage the power cord by placing a heavy object on it, nor pinching it between angular objects to prevent hazard. Do not cut and splice the power cord.**

Model DP-_____ Serial No. _____

Please, record and retain the Model name and serial number of your set shown on the rating label.

—— INSIDE PACKAGE ——

Before set-up, check all the following parts and accessories.

1. Main body (Phono motor and cabinet)
2. Turntable platter
3. Turntable mat
4. Dust cover
5. 45rpm record spindle adaptor
6. Operating instructions
7. Counterweight

<Following items are for Model DP-1100 only>

8. Head shell
9. Head shell accessories (for cartridge mounting)
10. Screw driver (for tonearm adjustment etc.)

BEFORE READING THIS INSTRUCTION MANUAL

This instruction manual applies to Models DP-1100 and DP-1250. Both models have same turntable unit.
Model DP-1100 is a direct drive record player equipped with a **DENON** original tonearm.
Model DP-1250 is a direct drive record deck without tonearm but with a replaceable tonearm board mounted on a genuine wood veneer cabinet.
Some tonearm models on market may not be fitted on Model DP-1250 because of dimensions or other reasons. Make sure when you select a tonearm if it can be fitted or not.
Paragraphs bearing 《DP-1100》 or 《DP-1250》 on their titles apply to the respective models.
In order that you may enjoy the full benefit of the **DENON** DP-1100/DP-1250. Please read these instructions carefully and use it accordingly.

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GOOD CARE KEEPS GOOD PERFORMANCE

1. The speed detecting magnetic head is mounted very close to the magnetic coating on the inside surface of the turntable platter. **DO NOT** under any circumstances **LOOSEN THE SCREWS** fixing this head in place. Also be very careful when mounting or removing the turntable platter **NOT TO SCRATCH THE MAGNETIC COATING** with the magnetic head.
2. **DO NOT BRING A MAGNET** close to the magnetic coating of the turntable platter, **NOR SCRATCH** the coating, **NOR WIPE IT WITH A SOLVENT** (such as paint thinner, trichloroethylene, or toluene). If you do, the unit may not be able to maintain proper speed.
3. If the power is switched ON with the turntable platter removed off, the motor will run without control at high speed, possibly causing trouble.
4. **AVOID** a place directly exposed to **SUNRAYS OR EXTREME HEAT.**
5. Also **AVOID** a place where **VERY MOISTY OR DUSTY.**
6. **KEEP** the player system **AWAY FROM THE SPEAKER SYSTEM** to avoid howling problems.
7. The motor bearings are filled with a special oil, so there is **NO NEED FOR ANY LUBRICATION.**
8. Unplug the power supply cord when you leave the set unused.
9. The tonearm of Model DP-1100 will not move beyond the limits which range from the arm rest to the final record groove and a little extra. **DO NOT FORCIBLY MOVE** the tonearm.

SETUP AND ADJUSTMENT

1. Installing the turntable platter

1) Before mounting the turntable platter, wipe off grease from the motor shaft with a soft cloth.
2) To attach the platter to the motor shaft, place your fingers through the two holes in the platter as shown in Fig. 1, and gently lower the platter onto the motor shaft. When removing the platter, hold it in the same manner and lift it straight up off the shaft.
3) After the platter has been mounted in place, place the turntable mat over the platter, centering it on the spindle (motor shaft).

2. Installing a tonearm 〈DP-1250〉

1) Before removing the arm board, determine where to install the tonearm, considering the swing angle of the tonearm, the opening and closing of the dust cover and the cut out circles at the bottom of cabinet. Also carefully follow the instruction manual provided with the tonearm.
2) Mark the tonearm mounting position on the arm board and if necessary, the arm rest position on the cabinet.
3) Remove the four arm board fixing screws using a Philips screw driver.
   Take out the arm board pushing it up from the bottom.
4) Drill necessary hole(s) and install the tonearm. Connect an output cord set, in accordance with the manual for the tonearm.
5) Return the arm board and fix it.
   NOTE: Specify part number "1018107004 ARM BOARD" at your **DENON** dealer, when you need a replacement arm board for another tonearm.

3. Attaching the counterweight 〈DP-1100〉

1) With the stylus force scale facing front as shown in Fig. 3, slide the counterweight from the rear end of the tonearm to the pin (white projection).
2) Push in the pin with your fingertip, lightly push the counterweight to conceal the pin under the stylus force scale.
3) After the pin has been concealed, turn the counterweight in the arrow direction (Fig. 3) while lightly pushing it so that it will be moved until the tonearm rear end is exposed as shown in Fig.10.

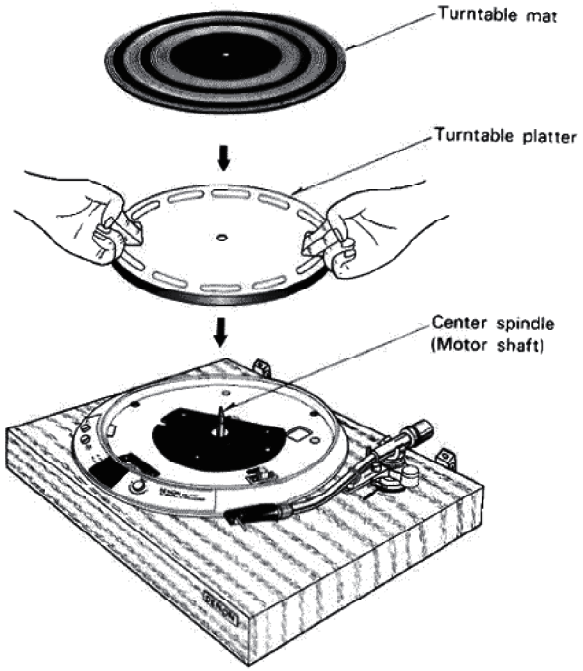


Fig. 1 Mounting the turntable

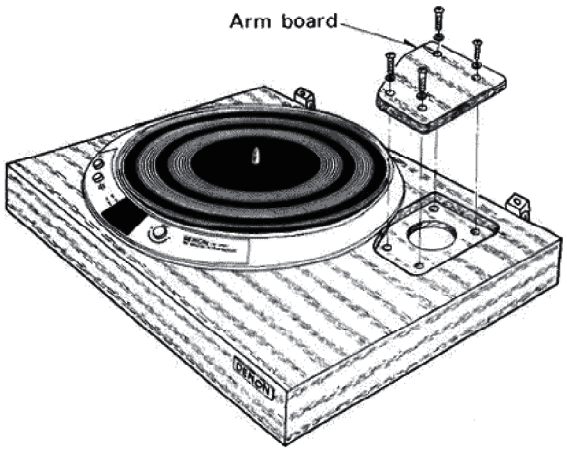


Fig. 2 How to remove arm board

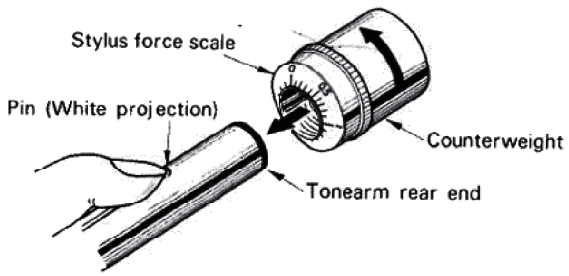


Fig. 3 Attaching the counterweight

4. Mounting your cartridge in the head shell 《DP-1100》

1) The head shell uses the E.I.A. standard 4P connector. The following items are included with this unit for mounting the cartridge on the head shell:

screws (M2.6×10)	2 pcs.
screws (M2.6×16)	2 pcs.
nuts	2 pcs.
nylon washers	2 pcs.
spacer	1 pc.

Fig. 4 shows how it is mounted. Almost any cartridge on the market (weighing 5 to 11 grams) can be mounted on this shell, but the way of fixing may vary with a particular cartridge, so follow carefully the mounting instructions accompanying your cartridge.
NOTE: Refer also to the instructions of the cartridge for maintenance and servicing.

2) As two pairs of screws different in length are prepared as accessories, select one of them suitable for your cartridge. Determine the position of the fixing screw head either to face upper side of the shell or to the body of the cartridge, so that the stylus protection cover can be suitably on. Utilize the nylon washers attached not to injure the shell.
NOTE: The spacer is recommended to be used for improved shell to cartridge contact and stabillity.

3) As shown in Fig. 4 the lead wires are colour-coded; red for right channel (hot), green for right ground, white for left channel (hot) and blue for left ground. Carry out connections correctly, paying enough attention to the connection of terminals on the cartridge side. A wrong connection will cause reversed-channels, abnormal sound image position or hum noise.

4) When installing the cartridge, first fix it lightly with screws so that it can be moved slightly. Bring the shell and cartridge parallel to each other lengthwise (Fig. 5) and perpendicular to each other viewed from front (Fig. 6). And then fasten the cartridge securely with the stylus point at the position as shown in Fig. 7 to obtain a proper overhang for the tonearm of this unit.

5. Mounting and removing the head shell on the tonearm 《DP-1100》

1) Align the head shell connector guide pin with the slot at the arm end as shown in Fig. 8, and slide the head shell over the tonearm.

2) Turn the lock nut in the arrow direction until it can no longer be turned to fasten the head shell and arm together securely.

3) When removing the head shell, turn the lock nut in the opposite direction, and pull it out lightly.

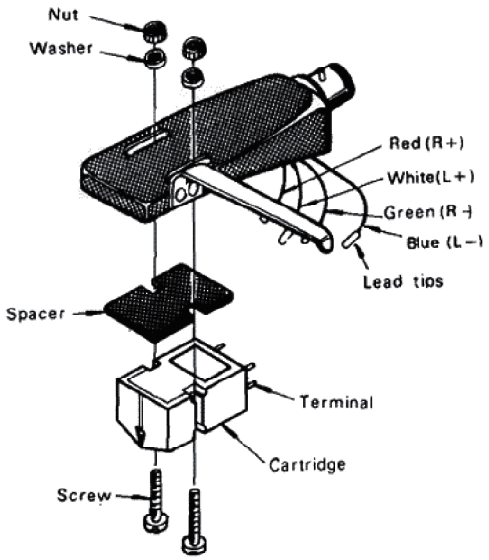


Fig. 4 Mounting the cartridge in the head shell

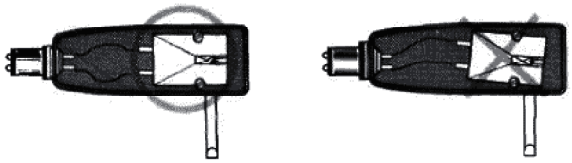


Fig. 5 Make parallel

Fig. 6 Make vertical

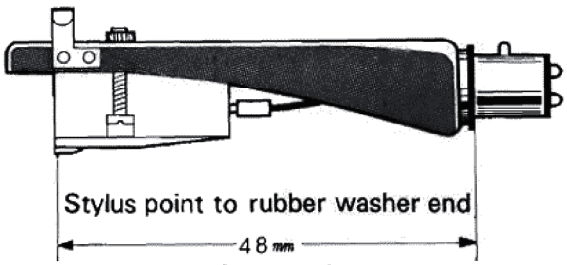


Fig. 7 Stylus tip position

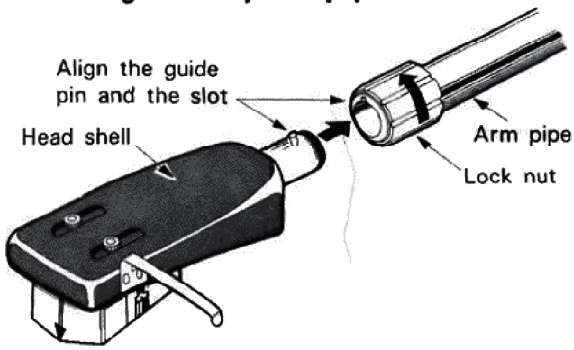


Fig. 8 Attaching the head shell

6. Tonearm height adjustment 《DP-1100》

Adjust the tonearm height so that the arm pipe is parallel to the record surface when the stylus is placed on it. Loosen the arm fixing screws of the arm stand, raise or lower the tonearm to the proper height, and then retighten it and the other height screw. See Fig. 9.

7. Stylus force adjustment 《DP-1100》

Adjust the counterweight to the correct stylus force as mentioned below. (Fig. 10, 11, 12)

1) Remove the stylus cover from the cartridge, if removable.

2) Set the anti-skating knob to "0" on the scale. (Fig. 10)

3) Lower the cueing lever, remove the tonearm from the arm rest, turn the counterweight so that the tonearm will balance horizontally. (If the shell end is down, turn the counterweight opposite the arrow direction shown in Fig. 11, and if the shell end is up, turn the counterweight in the arrow direction in the figure.)

NOTE: Hold the finger hook with your fingertip to prevent the shell from falling until the stylus hits the turntable mat, or from jumping up. Rerease the finger hook momentarily and see if the tonearm is horizontally balanced.

4) Keep the counterweight from turning and turn only the stylus force scale until the "0" on the stylus force scale is in line with the tonearm reference line (Fig. 11). (Since the tonearm is brought to horizontal balance at this time, the stylus force will be zero now.)

5) Turn the counterweight to the arrow direction until your desired stylus force 2 grams, for instance, as in Fig. 12 is set in line with the tonearm reference line. (The counterweight and the stylus force scale are coupled with friction to each other so that, when the counterweihgt is turned, the stylus force scale will turn together with it, contrarily however, as the stylus force scale is turned, the counterweight will not turn, because the friction between the counterweight and the tonearm body is larger than the friction between the counterweight and the stylus force scale.)

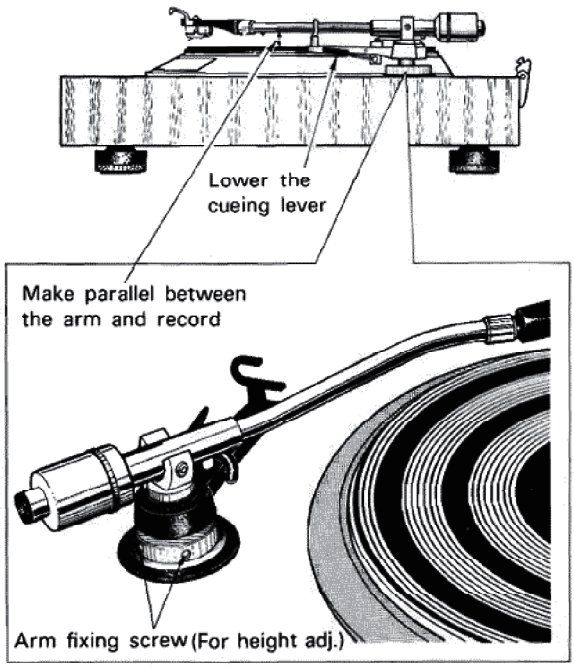


Fig. 9 Tonearm height adjustment

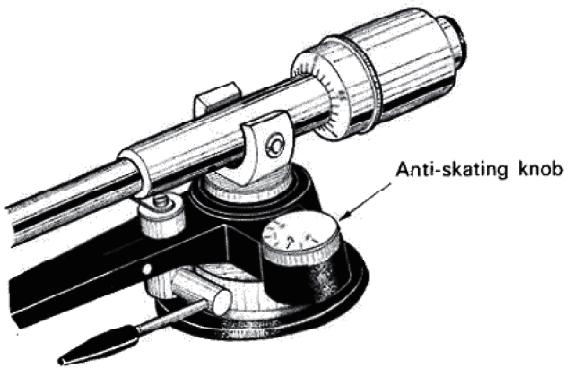


Fig. 10 Set the anti-skating knob to "0"

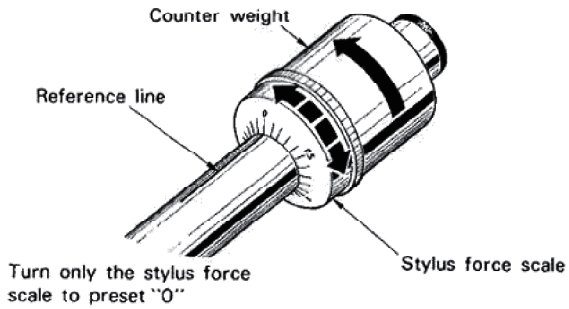


Fig. 11 "0" Balance

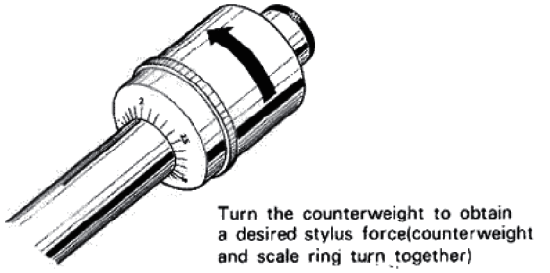


Fig. 12 Stylus force when set to 2 grams

8. Adjustment of anti-skating knob 〈DP-1100〉

Adjust the anti-skating knob so the pointer indicate the same number as the stylus force for the cartridge you are using. Fig. 13 shows the position of the anti-skating knob for a stylus of a 2 grams.

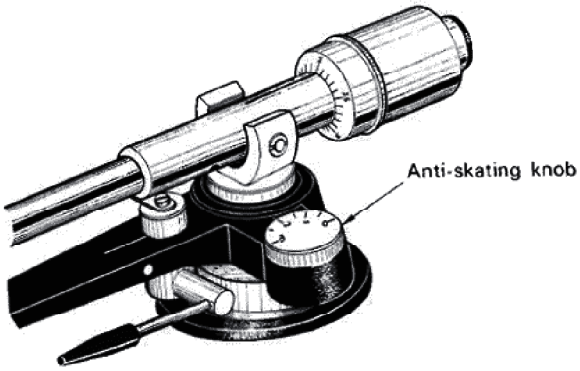


Fig. 13 Anti-skating force adjustment

9. Mounting the dust cover

Align the slots of the dust cover fittings with the tabs on the hinges, and slide them firmly in the arrow direction shown in Fig. 14. When removing the dust cover, open it all the way and then pull it off the hinges in the opposite direction of the arrow.

NOTE: If the dust cover hinges are not pushed completely onto the hinges, the dust cover will not close completely. When mounting or removing the dust cover, grip the cover at points near the fittings.

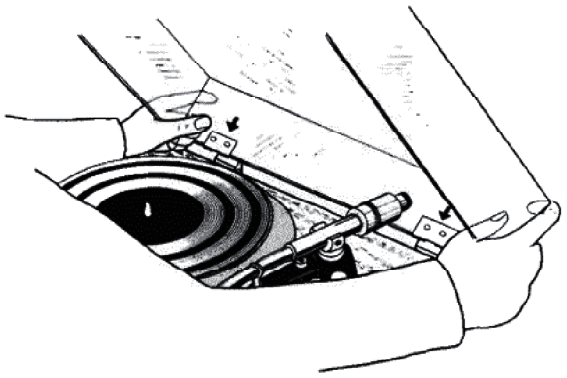


Fig. 14 Mounting dust cover

10. Dust cover opening angle 〈DP-1250〉

The dust cover hinges are adjusted at the factory so that the dust cover will stay at approximately 45° when it is opened. To adjust this angle, turn the adjusting screw on the bottom of each hinge, with a Philips screw driver as shown in Fig. 15. Turning the screw clockwise decreases the stop angle, and turning it counterclockwise increases it.

The opening angle of Model DP-1100 is not adjustable.

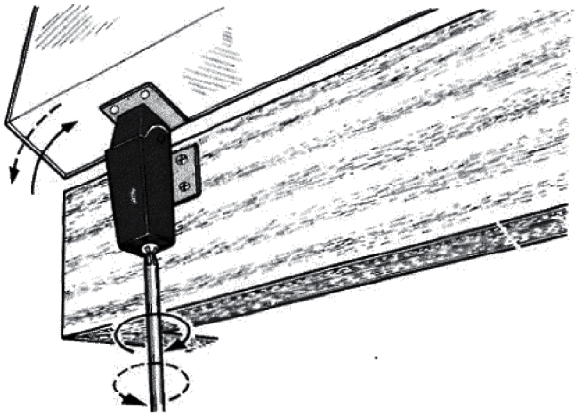


Fig. 15 Stop angle adjustment

11. Insulator height adjustment

The insulator legs can be individually adjusted by turning them by hand. After placing the set where you are going to use it, adjust the height of each insulator leg until the turntable platter is level. (Fig. 16).

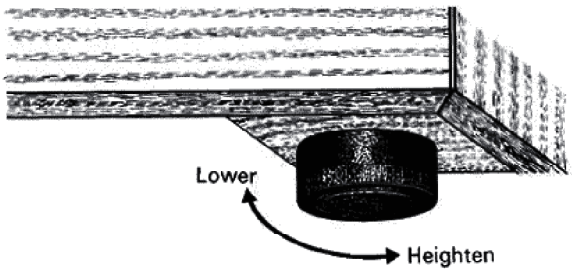


Fig. 16 Insulator height adjustment

CONNECTIONS

After assembling your set, make the following connections (Fig. 17).

1) Correctly connect the output pin plugs to your amplifier's PHONO input jacks, making sure that its LEFT (white) and RIGHT (red) pins are connected to the LEFT and RIGHT jacks respectively.
2) Connect the Y-shaped lugs of the arm ground wire built into the output cord and of the separate chassis ground wire to your amplifier's GND (ground) terminal.

NOTE: Some tonearms may not be provided with output ground wire. If this is the case connect only chassis ground.

3) Connect the power cord plug to a power outlet whose voltage is between 110 V and 120 V.

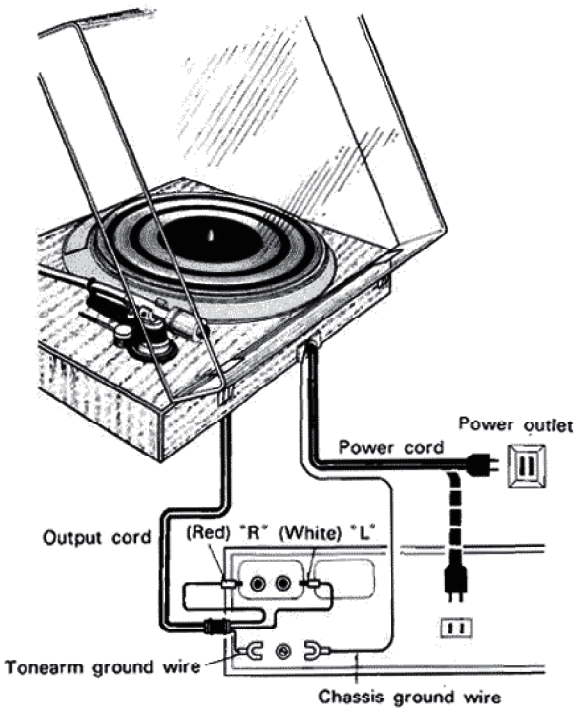


Fig. 17 Wire connection

OPERATION

1. Speed selection

Select the speed by pushing in the speed selection button for 33-1/3 rpm., or by pushing it out for 45 rpm. suitable for the record.

2. Start and stop (Power on/off)

Push in the power switch button and the power will be put on. At the same time, the strobo lamp will light and the turntable will start. Push the same button again to stop playing. The power will be put off.

3. Speed adjustment (Fig. 18)

The speed control knob controls both 33 and 45 tuning. Adjust the speed with this knob to bring the upper strobo pattern still for 45 rpm and lower pattern for 33-1/3rpm. (Fig. 18)
When a pitch tuning or tempo timing is desired, turn the knob clockwise (+) to increase speed and counter-clockwise (−) to decrease speed. The variation range is over ±3% of both "33" and "45" nominal speeds.

NOTE: Even after a still strobo pattern is obtained, it might flow again slowly to either direction. This is considered mainly because of power supply frequency fluctuation. The neon lamp on this set is lighted by the power source. So if the source frequency fluctuates the strobo pattern will run even if the platter is turning at a constant speed.
The speed of this record player may be slightly drifting. But the drifting is so slow and slight that it will cause no problem in ordinary use. A flow of 7 frames per minute on 60Hz line of the strobo pattern corresponds to the deviation of 0.1% of the nominal speed.

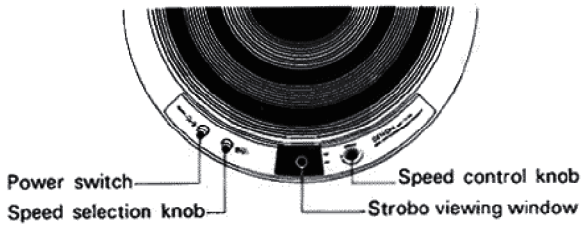


Fig. 18 Control panel

NOTE: The strobo pattern may be swaying slightly inside and outside. This is due to strobo pattern eccentricity, not to the platter's eccentricity. This will not cause wow or flutter.

4. Cueing lever operation (Fig. 19) 〈DP-1100〉

1) When starting to play, raise the cueing lever fully, bring the cartridge stylus to a desired point on the record, and tilt the cueing lever frontward. The stylus will be slowly lowered on the record and the record will begin to play.
2) When the record has come to its end, or when you wish to suspend its play, raise the cueing lever so that the stylus will rise clear of the record. Then return the tonearm to the arm rest.

NOTE: If the cueing lever is held down with your hand when it is lowered, the lifter arm will not lower because it is structurally so made. The lifter arm begins to lower when your hand is off it.

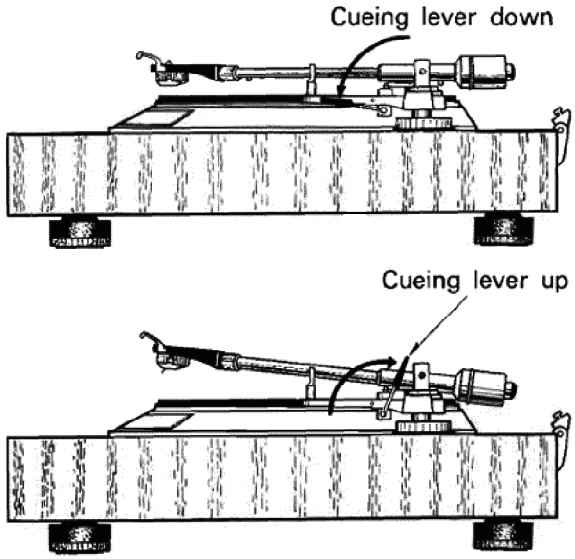


Fig. 19 How to use the cueing rever

MAINTENANCE AND READJUSTMENT

1. Exchange of cartridge

It is one of the pleasure to play with different cartridges. It will be more convenient if you obtain a new cartridge shell together with the cartridge itself. Individual cartridge can be mounted on its own shell with proper stylus position free from repetition of delicate assembling. (A **DENON** shell is recommended because of its rigidity and light weight.)

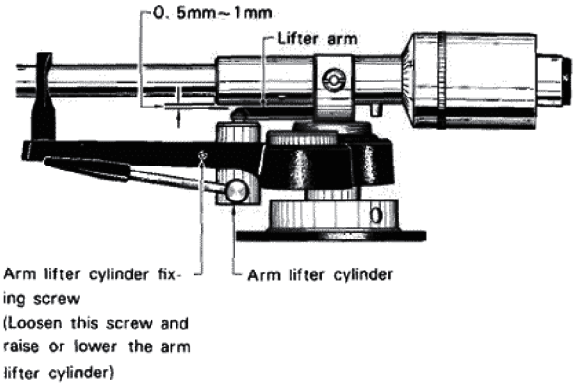
NOTE: When a different cartridge is plugged, the weight will be different and so will be the stylus force. Do not forget to adjust the stylus force. Refer to "**stylus force adjustment**" on page 6. Ajust the tonearm height if necessary. Also adjust anti-skating force. Refer to "**Tonearm height ajustment**" on page 6.

2. Lubrication

As stated in the precautional note, there is no need for any lubrication.

3. Readjusting the arm lifter 〈DP-1100〉

The arm lifter has been adjusted prior to shipment, but if the cartridge stylus will not land on the record when the cueing lever and lifter arm are lowered, or if the stylus remains on the record even when the cueing lever is raised and so is lifter arm, loosen the lifter cylinder fixing screw and raise or lower the cylinder (Fig. 20). Make an adjustment, when the ceuing lever is lowered, so that the clearance between the lifter arm and the arm pipe will become 0.5mm to 1mm. After this adjustment, retighten the screw securely.


0. 5mm~1mm
Lifter arm
Arm lifter cylinder fixing screw
(Loosen this screw and raise or lower the arm lifter cylinder)
Arm lifter cylinder

F.g. 20 Arm lifter height readjustment

DENON

SPECIFICATIONS

• PHONO MOTOR

Drive system : Direct drive by AC servo motor
Speed control : Frequency detection servo system
Speed : 33-1/3 rpm, 45 rpm.
Speed adjustable range : Over ±3%
Wow/Flutter : Less than 0.018% Wrms[1)]
S/N ratio : Over 75 dB (DIN-B)
Starting time : Less than 1.5sec. (33-1/3 rpm)
Turntable : Aluminium alloy diecast, 1.5 Kg, 30 cm diam. Moment of inertia of 190Kg·cm² (including turntabie mat)

• TONEARM《DP-1100》

Type : Static balance type
Effective length : 244 mm
Overhang : 14 mm
Tracking error : Less than 2.5°
Acceptable weight of cartridge : 5 g to 11 g
Stylus force range : 0 to 2.5g (1 degree corresponding to 0.1 g), direct reading
Height adjustment range : 42 to 47 mm
Other facilities . Oil damped cueing device Anti-skating device

• GENERAL

Power supply : 120 V 60 Hz
Power consumption : 15 W
Dimensions : (Dust cover closed)
485(W)×163(H)×396(D)mm 《DP-1100》
510(W)×171(H)×417(D)mm 《DP-1250》
Weight : Approx. 10.5 Kg (Both models)

Note :

1) Measured by DENON method using a magnetic pulse wheel.

* The above specifications are subject to change for improvement without notice.

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